

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 02 AG 22 E	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/ IT 02/ 00521	International filing date (day/month/year) 06/08/2002	(Earliest) Priority Date (day/month/year)
Applicant FEDEGARI AUTOCLAVI SPA		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☒ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1
☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IT 02/00521

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

As a result of the prior review under R. 40.2(e) PCT,
no additional fees are to be refunded.

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☒ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-6

Method for removing substances from a solid matrix with a fluid, comprising the steps of washing the solid matrix with the fluid in liquid or supercritical state, expanding the fluid and heating it, compressing the fluid and cooling it whereby there heat is exchanged between the fluid in heated phase and the fluid in cooled phase where the fluid is carbon dioxide, an alkane or alkene or an hydrofluorocarbon.

2. Claims: 7-12

Apparatus for removing substances from a solid matrix with a fluid, comprising a container for washing the solid matrix with the fluid in liquid or supercritical state, a valve for expanding the fluid and heating it, a compressor for compressing the fluid and a plate type heat exchanger for exchanging heat between the fluid in heated phase and the fluid in cooled phase.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/IT 02/00521

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 B08B7/00 F28D9/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 B08B D06F F28D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 56970 A (ELECTROLUX AB ;UHLIN GOERAN (SE)) 28 September 2000 (2000-09-28) abstract; figure 1	1-3,6,7
Y	page 2, line 23 -page 8, line 27 ----	4,5,8-11
X	GB 1 405 976 A (PRZED DOSWIADCZALNE PRZEMYSLOW) 10 September 1975 (1975-09-10)	12
Y	the whole document ----	8,9
Y	FR 2 815 559 A (COMMISSARIAT ENERGIE ATOMIQUE) 26 April 2002 (2002-04-26) abstract; claim 11; figure 2 page 43, line 3 - line 19 ----	4,5,10
Y	US 2002/023662 A1 (MARKIEWICZ JOHN P ET AL) 28 February 2002 (2002-02-28) abstract; figure 1 paragraph '0086! -----	11

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

29 July 2003

Date of mailing of the international search report

27. 08. 2003

Name and mailing address of the ISA

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Authorized officer

Plontz, N

INTERNATIONAL SEARCH REPORT

ation on patent family members

International Application No

PCT/IT 02/00521

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 0056970	A	28-09-2000	AU	3992000 A		09-10-2000
			EP	1185731 A1		13-03-2002
			JP	2002539868 T		26-11-2002
			WO	0056970 A1		28-09-2000
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GB 1405976	A	10-09-1975	PL	84062 B1		28-02-1976
			CS	166205 B2		27-02-1976
			DD	106697 A5		20-06-1974
			DE	2335784 A1		24-01-1974
			FR	2193189 A1		15-02-1974
			RO	68190 A1		26-02-1982
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FR 2815559	A	26-04-2002	FR	2815559 A1		26-04-2002
			WO	0232593 A1		25-04-2002
<hr/>						
US 2002023662	A1	28-02-2002	US	6312528 B1		06-11-2001
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1. The present communication is an Annex to the invitation to pay additional fees (Form PCT/ISA/206). It shows the results of the international search established on the parts of the international application which relate to the invention first mentioned in claims Nos.:
- 1-6
2. This communication is not the international search report which will be established according to Article 18 and Rule 43.
3. If the applicant does not pay any additional search fees, the information appearing in this communication will be considered as the result of the international search and will be included as such in the international search report.
4. If the applicant pays additional fees, the international search report will contain both the information appearing in this communication and the results of the international search on other parts of the international application for which such fees will have been paid.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 56970 A (ELECTROLUX AB ;UHLIN GOERAN (SE)) 28 September 2000 (2000-09-28) abstract; figure 1	1-3, 6
Y	page 2, line 23 -page 8, line 27 ---	4, 5
Y	FR 2 815 559 A (COMMISSARIAT ENERGIE ATOMIQUE) 26 April 2002 (2002-04-26) abstract; claim 11; figure 2 page 43, line 3 - line 19 -----	4, 5

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Patent Family Annex

Information on patent family members

International Application No

IT 02/00521

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 0056970	A	28-09-2000	AU	3992000 A		09-10-2000
			EP	1185731 A1		13-03-2002
			JP	2002539868 T		26-11-2002
			WO	0056970 A1		28-09-2000
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FR 2815559	A	26-04-2002	FR	2815559 A1		26-04-2002
			WO	0232593 A1		25-04-2002
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